**Understanding the Times**

**Mysteries of Life’s Origins**

1. **Fundamental questions**
   1. What brought life into existence?
      1. Chance and necessity?
      2. Purpose, plan, and design?
   2. Darwin saw life as the product of undirected natural forces
      1. Time, chance, and natural selection
      2. E.g. finch beaks
2. **Doubts about Darwinism**
   1. Click here to enter text.: miniature molecular machines
   2. Click here to enter text.: if any part is removed, the system loses function
      1. Mouse trap (5 essential parts)
      2. Bacteria flagellum (40 essential parts)
   3. Intelligent Design
3. Click here to enter text.**: natural selections ability to borrow components from one machine to build another**
   1. Borrowing from nothing
   2. Assembly sequence
   3. Irreducibly complex borrowed components
4. **How did life begin?**
   1. How do you get new living forms and structures from life that already exists?
   2. How did life originate in the first place?
5. **Proteins: 30,000 distinct types made from a sequence of 20 different amino acids**
   1. Biochemical predestination: life was inevitable due to attraction between amino acids
      1. Where did genetic assembly instructions come from?
      2. How can proteins assemble without instructions from DNA?
6. **First Cell**
   1. Chance alone
   2. Natural selection could not have existed before the first living cell
7. **Cell factory**
   1. Click here to enter text.: storehouse for instructions to build every protein in an organism
   2. Click here to enter text.: process where DNA is unwound to expose instructions for RNA
   3. Click here to enter text.: carries the genetic information out of the cell
   4. Click here to enter text.: process where information is translated and protein in built
   5. Click here to enter text.: translates and builds specific amino acids from information
   6. Strain folded into protein (in a barrel-shaped cellular machine)
   7. Protein moved to where it is needed
8. **The Design Inference**
   1. Improbable object/event
   2. Recognizable pattern
   3. Click here to enter text.: small probability and specification
      1. SETI: searching for information
      2. DNA: world of information